1.3 Product Information 1.3.1 Summary of Product Characteristics (SmPC)						

# **Module I Administrative Information Product Name:** CHLOROQUINE PHOSPHATE INJECTION

## **Summary Product Characteristics**

# 1. Name of the proprietary product: ---

Name of the nonproprietary International Product: Chloroquine Phosphate Injection

Route of Administration: Intramuscular, Intravenous injections

## 2. Qualitative and Quantitative composition:

Sr. No	Ingredients	Specifi cation	Label Claim	Qty/ ml(mg)	Qty/ vial (gm)	Reason for inclusion		
ACTIVE								
1.	Chloroquine Phosphate Eq to Chloroquine	BP	40 mg	64.50 40.0	1.935	Active		
EXCIPIENTS								
2.	Benzyl Alcohol	BP	2% v/v	0.02 ml	0.6 ml	Preservative		
3.	Water for Injection	BP		q.s.	q.s.	Solvent		

Where, BP- British Pharmacopoeia, q.s.- quantity sufficient

## **Calculation:**

Molecular weight of Chloroquine Phosphate 515.865 Molecular weight of Chloroquine 319.872 519.9 of Chloroquine Phosphate is equivalent to 319.9 Chloroquine Therefore, 64.50 chloroquine phosphate is equivalent to 40 mg chloroquine.

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## 3. Pharmaceutical Form: solution for Injection

## 4. Clinical Particulars:

## 4.1 Therapeutic Indications:

The FDA recommends Chloroquine Injection for the treatment of extraintestinal amebiasis. It is also used in the treatment of amoebic hepatitis and abscess, discoid and systemic lupus erythematosus and rheumatoid arthritis.

## 4.2 Posology and method of administration:

**Adult:** 200 to 300 mg chloroquine base by intramuscular or intravenous injection. It should not be given intravenously to children.

#### Rheumatoid arthritis:

Adults: Starting dose: 400 mg a day. The treatment needs to be continued for 6-8 weeks before assessing the effect.

Maintenance dose: 200 mg a day and later potentially 200 mg every other day.

Children: The minimum effective dose needs to be applied and cannot exceed 6.5 mg/kg based on the so called 'ideal body weight' (IBW).

## **Systemic and Discoid Lupus Erythematosus:**

Adults: Starting dose: 400 mg to 600 mg a day (for a few weeks if necessary). Maintenance dose: 200 mg to 400 mg a day.

## **Amoebic hepatitis:**

For extraintestinal amebiasis, 1g is administered once daily for 2 days, and then 500mg is administered once daily for 14 to 21 days.

#### 4.3 Contraindications

Care is needed in administering chloroquine to patients with impaired liver or renal function or with porphyria.

#### 4.4 Special warnings and precautions for use

Contraindicated in patients hypersensitive to drug and in those with retinal or visual field changes or porphyria. Use cautiously in patients with hepatic disease, alcoholism, or in conjunction with hepatotoxic drugs. Use cautiously in patients with blood disorders or G6-PD deficiency.

## 4.5 Interaction with other medicinal products and other forms of interaction:

If you use other drugs or over the counter products at the same time, the effects of Chloroquine Phosphate Injectionmay change. This may increase your risk for side-effects or cause your drug not to work properly. Tell your doctor about all the drugs, vitamins, and herbal supplements you are using, so that you doctor can help you prevent or manage drug interactions. Chloroquine Phosphate Injection may interact with the following drugs and products:

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Arsenic trioxide

Cisapride

Dofetilide

Erythromycin

Fluconazole

Levofloxacin

Methadone

#### 4.6 Pregnancy and Lactation:

Breast-feeding patients

• Drug appears in breast milk. Safety hasn't been established. Use cautiously in breast-feeding women.

Pediatric patients

• Children are extremely susceptible to toxicity; monitor children closely for adverse effects.

## 4.7 Effects on the ability to drive and use machines

One should not drive a vehicle if using the medicine makes you drowsy, dizzy or lowers your blood-pressure extensively.

#### 4.8 Undesirable effects:

Administration must be monitored as cardiovascular collapse with or without cardiac arrhythmia may occur especially after intravenous administration and even after the conventional mode of administration.

Pruritus is a common side-effect; headache and visual and gastrointestinal disturbances occasionally arise, but disappear on discontinuation of treatment. Blood dyscrasias have occasionally been reported.

#### 4.9 Overdose

Headache, drowsiness, respiratory and cardiovascular depression, arrhythmias, shock, visual disturbances, convulsions, respiratory and cardiac arrest. Overdosage is more likely in children and with intravenous administration. Treatment of overdosage is symptomatic and supportive.

#### 5. Pharmacological Particulars:

## 5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Sulfonamide amoebicide

ATC code: P01BA01

Anti-inflammatory action: Drug antagonize histamine and serotonin and inhibit prostaglandin effects by inhibiting conversion of arachidonic acid to prostaglandin F2; it also may inhibit chemotaxis of polymorphonuclear leukocytes, macrophages, and eosinophils.

Rheumatoid arthritis: Chloroquine also functions as an anti-autoimmune therapy. It exerts its effects by binding to transcriptional factors on T helper 17 cells and preventing differentiation. At the same time, chloroquine also activates the transcription factor Foxp3, driving the formation of regulatory T cells. Regulatory T cells have been shown to treat and prevent autoimmune diseases. Specifically, for the treatment of rheumatoid arthritis, chloroquine prevents the presentation of autoantigens from MHC class II, therefore, preventing activation of CD4+ T cells.

Hepatic amoebiasis: Chloroquine's spectrum of activity includes the asexual erythrocytic forms of Plasmodium malariae, P.ovale, P. vivax, many strains of P. falciparum, and Entamoeba histolytica.

Lupus erythematosus: Chloroquine increase pH within intracellular vacuoles and alter processes such as protein degradation by acidic hydrolases in the lysosome, assembly of macromolecules in the endosomes, and posttranslation modification of proteins in the Golgi apparatus.

## 5.2 Pharmacokinetic properties

Absorption: Absorbed readily and almost completely.

Distribution: 55% bound to plasma proteins. Concentrated in erythrocytes, liver, spleen,

kidneys, heart, and brain and is strongly bound in melanin-containing cells.

Metabolism: About 30% of an administered dose is metabolized by the liver to monodesethylchloroquine and bidesethylchloroquine.

Excretion: About 70% of dose is excreted unchanged in urine; unabsorbed drug is excreted in feces. Small amounts of the drug may be present in urine for months after the drug is discontinued. Renal excretion is enhanced by urinary acidification.

Route Onset Peak Duration

P.O. Unknown 1-3 hr Unknown LM. Unknown 1/2 hr Unknown

#### **5.3 Pre-clinical Safety:**

Administration must be monitored as cardiovascular collapse with or without cardiac arrhythmia may occur especially after intravenous administration and even after the conventional mode of administration. Pruritus is a common side-effect; headache and visual and gastrointestinal disturbances occasionally arise, but disappear on discontinuation of treatment. Blood dyscrasias haveoccasionally been reported.

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#### 6. Pharmaceutical Particulars:

## **List of Excipients:**

No excipients added.

## **6.2 Incompatibilities:**

In the absence of compatibility studies, this medicinal product must not be mixed with other medicinal products.

## **6.3 Shelf Life:** 36 months

## **6.4 Special Precautions for storage:**

Store below 30°C in a dry place, protected from light.

The reconstituted solution should be stored below 30°C and should be used within 1hour.

#### 6.5 Nature and contents of container:

Clear colourless solution filled in 30 ml amber colour glass vial with flip off Seal cap, packed in a primary Carton along with Pack insert.

## 6.6 Special precautions for disposal and other handling:

No special requirements. Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

## 7. Marketing Authorization Holder:

## M/s. LONGER LIFE HEALTHCARE LTD.

24, Guest House Street, Fegge Onitsha, Anambra State, Nigeria.

- 8. Marketing Authorization Number: ---
- 9. Date of first Authorization /renewal of the authorization: ---
- 10. Date of revision of text:--